

#4

OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/732,627A

DATE: 07/18/2001

TIME: 16:26:15

Input Set : D:\pa_00325_f220.txt

Output Set: N:\CRF3\07182001\I732627A.raw

PS

ENTERED

```

1 <110> APPLICANT: Fincher, Karen L.
3 <120> TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated with
4   Plants
6 <130> FILE REFERENCE: 38-21(51770)B
8 <140> CURRENT APPLICATION NUMBER: US 09/732,627A
9 <141> CURRENT FILING DATE: 2000-12-08
11 <160> NUMBER OF SEQ ID NOS: 4930
13 <210> SEQ ID NO: 1
14 <211> LENGTH: 262
15 <212> TYPE: DNA
16 <213> ORGANISM: Gossypium hirsutum
18 <220> FEATURE:
19 <223> OTHER INFORMATION: Clone ID: LIB3493-042-P1-M1-H11
21 <400> SEQUENCE: 1
23 cggacgcgtg ggctggggta caataaatga accattgcat attgctgtgg gagggatatga   60
25 tacaggaaga tctgccctg ggagaaatca caattcatca attgaaacat atttggtgc   120
27 acaccatatg attttggcac atgctgtgc tgtttccata tatcatagca agtacaagga   180
29 taagcaaggg ggacagatag ggtagtggt ggactgtgaa tgggccgaag ctaattcaga   240
31 taaaatttaa tattcaactt tc                                     262
34 <210> SEQ ID NO: 2
35 <211> LENGTH: 330
36 <212> TYPE: DNA
37 <213> ORGANISM: Gossypium hirsutum
39 <220> FEATURE:
40 <221> NAME/KEY: unsure
41 <222> LOCATION: (1)..(330)
42 <223> OTHER INFORMATION: unsure at all n locations
44 <220> FEATURE:
45 <223> OTHER INFORMATION: Clone ID: LIB3493-042-P1-M1-H2
47 <400> SEQUENCE: 2
W--> 49 tctcaatccc cagaaaagat catgaataaa acatcacaag anateccctc tactattttg   60
51 aggacatcaa ctcggagaaa acctaccaag gaagagcatc aaactgcaca atcgactgtc   120
53 ccaaccgaa aaacgacaag aagaacagct gaattggatg aagaaaacaa gaacctgaat   180
55 gtgactgaga ctgagactcc tgctgtgact actaacacca gcaagagggc taagaaaact   240
57 gaacctgaag ttaaggatca ataggaagag tgatttggtt gagacaccag ctttgagag   300
59 tggcaggaga aagtctggag tgggatctac                                     330
62 <210> SEQ ID NO: 3
63 <211> LENGTH: 235
64 <212> TYPE: DNA
65 <213> ORGANISM: Gossypium hirsutum
67 <220> FEATURE:
68 <223> OTHER INFORMATION: Clone ID: LIB3493-042-P1-M1-H3
70 <400> SEQUENCE: 3
72 tcgacccatg cctaccgagg ttcatctgtg ccatttactg atactaatga tgttcagagc   60
74 gggccaatca ctgggaggca tacttatgta gatgagtgtg tgaccaactg ttactcaact   120
76 gtgatcgagg aataccagat ctcatctgaa aaggctaaaa ggaagctcag aggtttcatt   180
78 ggtagaaga actgattttc acttatgctt ctgattagtg tggcacttaa tctta       235

```

RAW SEQUENCE LISTING

DATE: 07/18/2001

PATENT APPLICATION: US/09/732,627A

TIME: 16:26:15

Input Set : D:\pa_00325_f220.txt

Output Set: N:\CRF3\07182001\I732627A.raw

```

81 <210> SEQ ID NO: 4
82 <211> LENGTH: 341
83 <212> TYPE: DNA
84 <213> ORGANISM: Gossypium hirsutum
86 <220> FEATURE:
87 <221> NAME/KEY: unsure
88 <222> LOCATION: (1)..(341)
89 <223> OTHER INFORMATION: unsure at all n locations
91 <220> FEATURE:
92 <223> OTHER INFORMATION: Clone ID: LIB3493-042-P1-M1-H4
94 <400> SEQUENCE: 4
96 gcgagacgca gagttccaat ttgatatcga ctttgaggaa ccagagttag acttaaacc 60
98 gaaaatggct acagatgatt ttatgagcag agcaccattc caattgggaa acggatttgt 120
100 aagtaatcat tttccacttt caaagctgga ggaatgcttc gaggaagacg aagaagaaag 180
102 tgaagaagaa accgagcagc catgtttttc cactttcaaa gctcttgaaa ggatcccatc 240
104 cacttcaaag ctttcaatgt cgttcaaaaa taccagctta ggtgacaaga gcccaaagta 300
W--> 106 ttcaaaaattt tcttgaacaa agcaaganaa acggtacctt a 341
109 <210> SEQ ID NO: 5
110 <211> LENGTH: 192
111 <212> TYPE: DNA
112 <213> ORGANISM: Gossypium hirsutum
114 <220> FEATURE:
115 <223> OTHER INFORMATION: Clone ID: LIB3493-042-P1-M1-H5
117 <400> SEQUENCE: 5
119 cttaattctg tcggtgtttt tatctgtacg cttcagttcg ggtgttaggt ggctccagga 60
121 acagcccaat gatgacccca aaaacatgga cgctattcct ccattgatg cactcaacc 120
123 taccgagttg aatggacccg gtgttggcat tcacgaagat catgttgtcc caaaaggtgc 180
125 tgaaattggt ac 192
128 <210> SEQ ID NO: 6
129 <211> LENGTH: 355
130 <212> TYPE: DNA
131 <213> ORGANISM: Gossypium hirsutum
133 <220> FEATURE:
134 <223> OTHER INFORMATION: Clone ID: LIB3493-042-P1-M1-H7
136 <400> SEQUENCE: 6
138 tcgctaaaga atcctcttca ccacccctt atccatcgcc aagtgtttct tcaccggcac 60
140 cttcttttaa ttcaccacca acaccaactt caattttctt aacaaaggaa tgggggggac 120
142 ttttcttttg gttcaagggg gggaccatgc ggtggccttt tggaattttt tgataatggc 180
144 ctaaaatccg gcggtgggga aaatgaaaag gctgttggct gtcccggaac tgaatactgt 240
146 ggccctaggg attaccccat tggggaggcc caagaaggac ttgacctta gaacgctgga 300
148 gactatttgg gaggagcagc taggaagcga aaggtggtta aacacaaatt accat 355
151 <210> SEQ ID NO: 7
152 <211> LENGTH: 300
153 <212> TYPE: DNA
154 <213> ORGANISM: Gossypium hirsutum
156 <220> FEATURE:
157 <223> OTHER INFORMATION: Clone ID: LIB3493-042-P1-M1-H8
159 <400> SEQUENCE: 7
161 ctctcattct ttaccgggaa cacaaataaa cactaagaac aagacaatgg cagcaaaagc 60

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/732,627A

DATE: 07/18/2001

TIME: 16:26:15

Input Set : D:\pa_00325_f220.txt

Output Set: N:\CRF3\07182001\I732627A.raw

```

163 tgagaagaag ccagctgaga agaagccagc tgtggagaag aagacggtag ctgagaaagc 120
165 ccccgccgag aagaagccaa aggcaggcaa aaaggtttcc aaggaagggg gagctggggc 180
167 cggagacaag aagaagaaga ggggccagaa agaggctggg aacctcaaga actacatttt 240
169 caagggcttg gagcaaggtc accctggtat cgggatttta aggcaagggt tggggattat 300
172 <210> SEQ ID NO: 8
173 <211> LENGTH: 261
174 <212> TYPE: DNA
175 <213> ORGANISM: Gossypium hirsutum
177 <220> FEATURE:
178 <223> OTHER INFORMATION: Clone ID: LIB3493-042-P1-M1-H9
180 <400> SEQUENCE: 8
182 ctcgtgccat ttagtggttt aagggatttt ttcatttggt tcttcttacg ctggattacc 60
184 tcacgaaaag agaaaatgac caagtgttac ccaactgtga gcgaggaata ccagaagtca 120
186 gttgaaaagg ctaagaggaa gctcagaggt cttattgctg agaagaactg tgctccactc 180
188 atgcttcgtt tagcgtggca ctcaacttga acttttgatt gtaagaccaa aacaggaggt 240
190 tcattctgaa ccatgaaaca t 261
193 <210> SEQ ID NO: 9
194 <211> LENGTH: 165
195 <212> TYPE: DNA
196 <213> ORGANISM: Gossypium hirsutum
198 <220> FEATURE:
199 <221> NAME/KEY: unsure
200 <222> LOCATION: (1)..(165)
201 <223> OTHER INFORMATION: unsure at all n locations
203 <220> FEATURE:
204 <223> OTHER INFORMATION: Clone ID: LIB3493-042-P1-M1-G6
206 <400> SEQUENCE: 9
W--> 208 ttccgggacgc gtggggatga ttattgtgaa gaaatgggtg ttttnttnn nntggggggg 60
210 gtggttttat ggatgggtgg tgttttttat attttttatt aattattatt aatatattta 120
212 tatataatat ttattttatt gatattttat ttatatatta tttat 165
215 <210> SEQ ID NO: 10
216 <211> LENGTH: 123
217 <212> TYPE: DNA
218 <213> ORGANISM: Gossypium hirsutum
220 <220> FEATURE:
221 <223> OTHER INFORMATION: Clone ID: LIB3493-042-P1-M1-G8
223 <400> SEQUENCE: 10
225 tgaaagaaaa gagtgataaa catggtgcct gacaacaata ggaatgaggt tgaggattat 60
227 aagttaactg tggaagttcc tttaactggc catcaagtta gcaactgattc atggtttcag 120
229 ggc 123
232 <210> SEQ ID NO: 11
233 <211> LENGTH: 132
234 <212> TYPE: DNA
235 <213> ORGANISM: Gossypium hirsutum
237 <220> FEATURE:
238 <223> OTHER INFORMATION: Clone ID: LIB3493-042-P1-M1-G9
240 <400> SEQUENCE: 11
242 atgaaatctc tctgagagag gagttgctta actgaattgg ttttgggggg ggggagcatg 60
244 gttttgatgg aagattcaca tttaatttc aaccgatttc ctttgggtct aacttttcac 120

```

RAW SEQUENCE LISTING

DATE: 07/18/2001

PATENT APPLICATION: US/09/732,627A

TIME: 16:26:15

Input Set : D:\pa_00325_f220.txt

Output Set: N:\CRF3\07182001\I732627A.raw

```

246 tctaattttg ct 132
249 <210> SEQ ID NO: 12
250 <211> LENGTH: 254
251 <212> TYPE: DNA
252 <213> ORGANISM: Gossypium hirsutum
254 <220> FEATURE:
255 <223> OTHER INFORMATION: Clone ID: LIB3493-042-P1-M1-H1
257 <400> SEQUENCE: 12
259 ataaccagca cctcaaaggg ctgtagaaat ctgttgatat gtctgtaa atgtctcttat 60
261 cttacatgat agtgattcc tattgccagt tcagatgaat attcatggaa aagatctaga 120
263 gaattgcttc tggatgttgc taggcgagga gaggaagtg gttatggagt gccttgcccta 180
265 ctcatcgcag caaaggatga cttggacccc tttccgatgt ctctgcaaaa ctctgctaga 240
267 gttactcagc agtt 254
270 <210> SEQ ID NO: 13
271 <211> LENGTH: 232
272 <212> TYPE: DNA
273 <213> ORGANISM: Gossypium hirsutum
275 <220> FEATURE:
276 <223> OTHER INFORMATION: Clone ID: LIB3493-042-P1-M1-H10
278 <400> SEQUENCE: 13
280 caaagaaatc cgaggggttg atgatgttga tgaggagttt aaggacctag gggctgccag 60
282 tgatgcctcg aagcttggtg atcacccttg gaccaacttg ttgcagagga aatacaggcc 120
284 tcattctaacc atggccatct taattccttt ctttcaacaa ctaaccggca ttaatgtcat 180
286 tatgttttat gcacctgtat tgttcaacac aattgggttt ggggacgatg ct 232
289 <210> SEQ ID NO: 14
290 <211> LENGTH: 303
291 <212> TYPE: DNA
292 <213> ORGANISM: Gossypium hirsutum
294 <220> FEATURE:
295 <223> OTHER INFORMATION: Clone ID: LIB3493-042-P1-M1-G10
297 <400> SEQUENCE: 14
299 ggaaacttga attatggtaa ctcatccag gttcaatcag tcaatgtcat gagatgcacc 60
301 tttctcattg cctatgaagg attctaactc tgtcgggata cctagttcat caggtcatac 120
303 aatgcctggc atgatgcaa tgatgcctac cggaaatagt gaacggtctg ggaccagtc 180
305 tgtgaatcct ggaaacttac cggttatgtt cgggtacttg cctgttcaac ttccactgtt 240
307 ggataaagat aatccctggg gtatggtctc tcaccctccg caaatactgt cttttatgct 300
309 gtg 303
312 <210> SEQ ID NO: 15
313 <211> LENGTH: 80
314 <212> TYPE: DNA
315 <213> ORGANISM: Gossypium hirsutum
317 <220> FEATURE:
318 <223> OTHER INFORMATION: Clone ID: LIB3493-042-P1-M1-G11
320 <400> SEQUENCE: 15
322 ctggattaca tcattaatgt ctatttagtg gctagagaat tagtgatgtg tgagcctgtt 60
324 aagaatcttt atgtggaaaa 80
327 <210> SEQ ID NO: 16
328 <211> LENGTH: 250
329 <212> TYPE: DNA

```

RAW SEQUENCE LISTING

DATE: 07/18/2001

PATENT APPLICATION: US/09/732,627A

TIME: 16:26:15

Input Set : D:\pa_00325_f220.txt

Output Set: N:\CRF3\07182001\I732627A.raw

```

330 <213> ORGANISM: Gossypium hirsutum
332 <220> FEATURE:
333 <223> OTHER INFORMATION: Clone ID: LIB3493-042-P1-M1-G12
335 <400> SEQUENCE: 16
337 aacaaaacta ttctttactc tcaçcttact tccccatcta tttagggtgtg atgtatctta 60
339 gttcttgact aattatccaa tcacaccagc aaagtctttt ctcaatgac tcacacacct 120
341 caacctcaac gacaccactg aaaagatcat agccgaatac atatggatcc ggggatctgg 180
343 tatggatctt agaagcaaag caaagacttt gccttgacca ttgaccgacc ctttaaaact 240
345 tccgaatatg 250
348 <210> SEQ ID NO: 17
349 <211> LENGTH: 232
350 <212> TYPE: DNA
351 <213> ORGANISM: Gossypium hirsutum
353 <220> FEATURE:
354 <223> OTHER INFORMATION: Clone ID: LIB3493-042-P1-M1-G2
356 <400> SEQUENCE: 17
358 cttttcaaaa aaataaaaaa cctcttgtag cgctcagcta tcttagtttc ttatcatgga 60
360 tttttctaaa aataaaaaaa aacaatcaaa tgacatgaac cctaaaccag cagtatatgg 120
362 gtccgtaaag gatcacctgc tagaaaaacc ccaagaaaaa aaggtggaat atttgatttt 180
364 atgggcgctt ttaactcgtg aacatacggc tgattctgat tactcatgca tc 232
367 <210> SEQ ID NO: 18
368 <211> LENGTH: 131
369 <212> TYPE: DNA
370 <213> ORGANISM: Gossypium hirsutum
372 <220> FEATURE:
373 <223> OTHER INFORMATION: Clone ID: LIB3493-042-P1-M1-F7
375 <400> SEQUENCE: 18
377 gtcaaaaggt gagaacatca gtccctagct tccaatatgc acctgacct agagatagct 60
379 taaaaaatgc ctatgattgg acccaacagg agatttatgt tctgttagag ggttggggga 120
381 ataggttttt g 131
384 <210> SEQ ID NO: 19
385 <211> LENGTH: 310
386 <212> TYPE: DNA
387 <213> ORGANISM: Gossypium hirsutum
389 <220> FEATURE:
390 <223> OTHER INFORMATION: Clone ID: LIB3493-042-P1-M1-F8
392 <400> SEQUENCE: 19
394 cggacgcgtg gggaagctaa aggagtagtg aagcacatat tgttgccaaa ggtcaaagat 60
396 gaaatccac ctgagaagat tgaggaactc ataaaaggct atgccaatct tgtaaatctc 120
398 attcacccca tgaaagcttt cactggggg aagggtgta gtattgagaa cctgcatcaa 180
400 gggttcactc atgtgtttga atccacattt gaaagcacag aggggattgc tgagtatata 240
402 gctcatcctg ctcacgtgga gttagctatc tgtttcttcc catcttggaac aaggttattg 300
404 tatttttcta 310
407 <210> SEQ ID NO: 20
408 <211> LENGTH: 152
409 <212> TYPE: DNA
410 <213> ORGANISM: Gossypium hirsutum
412 <220> FEATURE:
413 <223> OTHER INFORMATION: Clone ID: LIB3493-042-P1-M1-F9

```

Use of n and/or Xaa has been detected in the Sequence Listing.
 Review the Sequence Listing to insure a corresponding
 explanation is presented in the <220> to <223> fields of
 each sequence using n or Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/732,627A

DATE: 07/18/2001

TIME: 16:26:16

Input Set : D:\pa_00325_f220.txt

Output Set: N:\CRF3\07182001\I732627A.raw

L:49 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:106 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:208 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:542 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26
L:566 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27
L:607 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29
L:658 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:752 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36
L:866 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41
L:874 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41
L:892 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42
L:1059 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50
L:1083 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51
L:1249 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:58
L:1473 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:69
L:1574 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:73
L:1658 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76
L:1713 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:78
L:2034 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:90
L:2036 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:90
L:2869 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:124
L:3138 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:134
L:3324 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:141
L:3465 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:147
L:3467 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:147
L:3577 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:152
L:3622 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:154
L:3729 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:158
L:3815 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:161
L:3899 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:164
L:4170 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:174
L:4294 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:179
L:4375 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:183
L:4551 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:190
L:4592 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:192
L:4859 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:204
L:4917 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:207
L:5063 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:214
L:5160 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:218
L:5308 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:225
L:5310 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:225
L:5426 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:230
L:5617 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:238
L:5687 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:241
L:5971 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:254
L:6001 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:255
L:6003 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:255
L:6360 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:269

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/732,627A

DATE: 07/18/2001

TIME: 16:26:16

Input Set : D:\pa_00325_f220.txt

Output Set: N:\CRF3\07182001\I732627A.raw

L:6388 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:270

L:6390 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:270